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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

POLLACK, MELVIN H

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/797,523	Applicant(s) WANG ET AL.	
	Examiner MELVIN H. POLLACK	Art Unit 2469	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7,9,11-14,16,17,25 and 29-32 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7,9,11-14,16,17,25 and 29-32 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 09 August 2010 has been entered.

Response to Arguments

2. Applicant's arguments filed 09 August 2010 have been fully considered but they are not persuasive. An analysis of the arguments is provided below.

3. The test of analyzing claim limitations is to interpret the claims given their broadest reasonable interpretation in light of the specification and in the knowledge of one of ordinary skill in the art. In this case, the particular amendments for all independent claims is unsupported by the specification. No portion of the specification uses the particular or similar language of the amendments and no portion of the remarks refers to the support of any added amendment. The closest segments of the specification in which the examiner can find allocations is allocation in response to an application request (Paras. 38-42), and allocation in response to a change in system-wide rules (Paras. 47-48). Therefore, in addition to applying a new matter objection in regards to the new claims, the examiner will interpret the new limitations in light of these paragraphs. As applicant has already conceded that Yanosy teaches these limitations (P. 11), the original rejection is maintained.

4. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., undergoing behavior modification while using an allocated resource, after accepting the request, not related to changing system-wide rules (P. 11)) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). In this case, the particular features are neither in the specification nor the claims. As written, one of ordinary skill in the art would recognize that the claims, given their broadest reasonable interpretation, may be fulfilled by modifying allocations in response to a system-wide change while still keeping in accordance with the negotiated contract. In fact, the system wide changes in Yanosy are made with respect to the contracts of each active application, performing a balance between several databases of rules. Therefore, the limitations as supported by the specification are met by Yanosy.

5. Applicant also failed to discuss the issue of whether Loewy teaches this limitation. (P. 13). While examiner does not rely upon Loewy to teach this limitation, the applicant is required to consider the art as a whole.

6. Applicant then argues, regarding claim 25, that Yanosy does not expressly disclose "directly manage the new resource at a middleware layer," but merely provides intermediary services (mediation, proxy) (P. 12). In reviewing the specification, examiner found as the only support of this limitation to be defining managing at a middleware layer to be precisely the

Art Unit: 2469

technique that applicant describes Yanosy of doing (Para. 43). This is also commensurate with the knowledge of one of ordinary skill in the art in terms of management layers and management thereof. If applicant wishes to clarify what it means for a middleware layer to directly manage a resource and how it does so, it must provide the proper support for any amendments and remarks.

7. Applicant then argues, regarding claims 5 and 6, that Yanosy does not expressly disclose a self-configurable resource (P. 12). Based on the only support for this limitation in the specification (Para. 42), this is to be interpreted as the system using rule systems (i.e. ontologies and knowledge bases) to calculate the resource negotiation without human intervention, performed at the step of application request handling. The cited portions show how the ontologies and knowledge bases are used in Yanosy to perform the negotiation by self-configuration.

8. Therefore, the rejections are maintained for the reasons above. This action is final.

Specification

9. The amendment filed 09 August 2010 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: the added limitations of all independent claims regarding determining whether client is using allocated resource in accordance with the

Art Unit: 2469

negotiated contract and changing the allocation to the client application in response to usage is not supported anywhere in the specification.

10. Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

11. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

12. Claims 1-7, 9-14, 16-26, and 28-32 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitations added to all independent claims are not supported in the specification such that one can determine enablement for the new monitoring, determining and changing steps.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

14. Claims 1-7, 9, 11-14, 16, 17, 25, 29-32 are rejected under 35 U.S.C. 102(e) as being anticipated by Yanosy (2003/0217128).

Art Unit: 2469

15. For claims 1, 12, 25, Yanosy teaches a method and system (abstract) of managing resources of a service-oriented information system (Paras. 1-15 and 42-43), the method comprising:

- a. providing information services, quality of service (QoS) management services, and resource management services to a plurality of client applications (Paras. 16-19; using bases and rules modules to handle applications);
- b. receiving a quality of service (QoS) message from a client application (application QOS negotiator 60) expressing at least one QoS requirement as at least one parameter value (Paras. 18, 27-31; QoS knowledge bases mediate needs of applications with available resources);
- c. notifying the client that the at least one QoS requirement is denied (Paras. 29-33; request is affirmed or denied);
- d. receiving a revised QoS message from the client and negotiating a contract with the client for quality of service based on the revised message (Paras. 34-37; negotiation process during application request);
- e. allocating at least one resource of the system to the client based on the negotiated contract (Paras. 40-41; system provides the resource); and
- f. when the client is using the at least one allocated resource;
 - i. monitoring QoS parameters with respect to the negotiated contract to determine whether the client is using the at least one allocated resource in accordance with the negotiated contract (Paras. 39-42; queries after original

Art Unit: 2469

request of QoS base, determine if resources are still available and still match request), and

ii. changing the allocation to the client application of the at least one allocated resource in response to usage of the at least one allocated resource by the client application determined to be not in accordance with the negotiated contract (Paras. 27-31; continuous negotiations when above variance requires "modified requests"; in alternative, system wide changes made in light of all negotiated contracts);

g. the method performed by a processor configured with memory included in the system (Paras. 20-21; database technology with hardware components), the providing, receiving, notifying, allocating, monitoring and changing steps performed (Figs. 1, 5, 6; figures show structure of the steps) using an information broker of the system (Paras. 16-19; application framework).

16. For claims 2, 13, 29, Yanosy teaches that the client expresses the at least one QoS requirement in a plurality of categories of QoS characteristics (Paras. 24-26).

17. For claims 3, 14, Yanosy teaches, through the broker, governing interaction of the client with the system based on the contract (Paras. 27-29).

18. For claim 4, Yanosy teaches receiving a plurality of QoS messages from a plurality of the clients, and allocating resources of the system based on a resource allocation policy (Paras. 27-31).

Art Unit: 2469

19. For claims 5, 16, Yanosy teaches allocating at least one resource comprises using a common management interface to implement a self configuration of at least one self-configurable resource (Para. 32; automatic partition of resources using database rules).

20. For claims 6, 17, Yanosy teaches implementing a self-configuration of at least one self-configurable resource comprises implementing a resource as an object of a subclass of an abstract resource class (Paras. 20-21; object-based ontology modules create automatic behaviors).

21. For claim 7, Yanosy teaches using the at least one parameter value to set at least one QoS value for the at least one resource (Paras. 25-26; setting QoS parameters).

22. For claims 9, 32, Yanosy teaches that establishing a contract comprises allowing the client to revise the parameter values to become consistent with a resource allocation policy of the system (Paras. 40-41; parameters change in subsequent negotiations).

23. For claim 11, Yanosy teaches receiving a plurality of QoS messages from a plurality of clients preparing to publish or subscribe a message or request a task execution, and establishing contracts with the clients for quality of service based on their requirements expressed in the QoS messages (Paras. 27-31; handling of multiple applications with multiple contracts).

24. For claim 30, Yanosy teaches the configuration to commit and initialize the one resource (Paras. 27-31; partitioning of resources).

25. For claim 31, Yanosy teaches a prediction service configured to track system conditions in terms of the at least one QoS parameter; and predict a future system condition based on the tracked conditions (Paras. 38-39; developer uses).

Claim Rejections - 35 USC § 103

Art Unit: 2469

26. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

27. Claims 10, 18-24, 26, 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yanosy as applied to claims 1, 12 above, and further in view of Loewy et al. (2004/0193703).

28. For claims 10, 18, 26, 28, Yanosy does not expressly disclose that the information system includes a service-oriented architecture (SOA), said method performed as a service invoked by the client. Loewy teaches a method and system (abstract) of QoS negotiation (Paras. 1-46, 232-233) including an SOA (Paras. 47-48; SOA) to perform QoS as services (Paras. 87-88, 213; QoS). At the time the invention was made, one of ordinary skill in the art would have added Loewy to Yanosy in order to improve scalability (Paras. 4-5).

29. For claim 19, Yanosy teaches a quality of service (QoS) management service (abstract) for use in an enterprise system (Paras. 1-15, 42-43), the QoS management service comprising a processor and memory of the enterprise system and a broker for a plurality of component services (Paras. 20-21 database technology with hardware components), the broker configured in the memory and executable by the processor to:

- a. receive a QoS message from a service requester of the enterprise system (Paras. 18, 27-31; QoS knowledge bases mediate needs of applications with available resources) expressing at least one QoS parameter (Paras. 25-26; QoS parameter);
- b. notify the service requester that the at least one QoS parameter is unacceptable (Paras. 29-33; request affirmed or denied);

Art Unit: 2469

- c. create a contract with the service requester for quality of service based on a revised QoS message received from the service requester (Paras. 34-37; negotiation process during application request);
 - d. wherein the contract has resulted in a resource having been allocated to the service requester and when the service requester is using the allocated resource, monitor the QoS parameters in the contract (Paras. 16-19; using bases and rules modules to handle applications) pertaining to the allocated resource to determine whether the contract is being adhered to (Paras. 39-42; queries after original request of QoS base, determine if resources are still available and still match request); and
 - e. change the QoS parameters of the contract of the service requester (Paras. 40-41; system changes the resource) when the service requester is using the at least one resource, the changing performed based on the determining (Paras. 27-31; continuous negotiations when above variance requires "modified requests"; in alternative, system wide changes made in light of all negotiated contracts).
22. Yasovy does not expressly disclose the enterprise system having a service oriented architecture (SOA). Loewy teaches this limitation (Paras. 47-48; SOA).
23. For claim 20, Yanosy teaches that the component services are further configured to adapt at least one resource of the enterprise system based on the monitoring (Paras. 24-29; system changing of resources).
24. For claim 21, Yanosy teaches that the component services are made available to the service requester by the processor through the broker (Figs. 1, 5, 6; figures show structure of steps).

Art Unit: 2469

25. For claim 22, Yanosy teaches that the component services are configured to manage a plurality of resources of the enterprise system based on a plurality of QoS contracts with a plurality of service requesters (Paras. 27-31; plurality of contracts, system changes based on available resources, application needs).

26. For claim 23, Yanosy teaches that the plurality of service requesters comprise tasks and messages (Paras. 20-26; application requests).

27. For claim 24, Yanosy teaches that the component services are configured in a middleware layer of the enterprise system (Para. 26; use of middleware to configuration).

Conclusion

1. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MELVIN H. POLLACK whose telephone number is (571)272-3887. The examiner can normally be reached on 8:00-4:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ian Moore can be reached on (571) 272-3085. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2469

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Melvin H Pollack/
Examiner, Art Unit 2469